

REMARKS/ARGUMENTS

In the Office action mailed June 21, 2007, claims 1-35 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,614,796 to Black et al. Furthermore, claim 36 was rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. in view of U.S. Patent No. 6,697,914 to Hospodor et al. The Examiner is thanked for attention to the application.

Claims 1, 9, 11, 12, 14, 15-17, and 21 are now amended. Claims 3, 4, 6, 8, 13, 19, 20, and 22-23 are cancelled. Claims 1-2, 5, 7, 9-12, 14-18, 21, and 24-36 remain in the application.

Claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by Black et al.

Claim 1, as amended, specifies "at least one device output configured to send data to at least one of the disks," and "at least one controller configured ... to generate, based on the at least one fibre channel primitive, at least one signal indicative of whether data from the at least one fibre channel input is to be routed to the at least one fibre channel output or to the at least one device output."

The Office action points to Black et al. for disclosing "at least one controller (switch control circuits, elements 36, 38, 40, Fig. 3) configured to process at least one fibre channel primitive flowing in the fibre channel arbitrated loop (processes OPN primitives flowing in) to generate at least one signal (to generate control signals) indicative of whether data from the at least one fibre channel input is to be routed to the at least one fibre channel output (to indicate to the cross-bar switch that the destination node has been located so as to connect the appropriate FCAL networks together to complete the conversation, col. 13, lines 33-42 and col. 15, lines 52-61)." Office Action, p. 3.

FIG. 3 of Black et al. discloses an OPN primitive OPN(11,7) flowing from node N7 into Switch Control Circuit 38. Black et al. further discloses the function of switch control circuits is "to transmit primitives and data involved in FCAL arbitration, data transfer and flow control to the appropriate loop segment, . . . , and to send appropriate control signals to the crossbar switch once the destination node has been located so as to connect the appropriate FCAL networks

together to complete the conversation.” Black et al., col. 13, lines 33-42. In addition, Black et al. discloses that “the OPN primitive signals when a source node has data to send, and the destination node then signals . . . saying it has reserved space to receive a frame.” Black et al., col. 15, lines 52-56.

Thus, the cited sections of Black et al. appear to disclose coupling of FCAL networks by a crossbar switch, and not “at least one device output configured to send data to at least one of the disks,” and “at least one controller configured ... to generate, based on the at least one fibre channel primitive, at least one signal indicative of whether data from the at least one fibre channel input is to be routed to the at least one fibre channel output or to the at least one device output”, as specified by claim 1.

Claim 1 and dependent claims 2, 5, and 7 are therefore allowable.

Claim 9 was rejected under 35 U.S.C. 102(b) as being anticipated by Black et al. Claim 9, as amended, specifies “processing the at least one fibre channel primitive to determine whether to route data received from the fibre channel arbitrated loop to the at least one disk or to the fibre channel arbitrated loop.”

The Office action states that Black et al. discloses “processing the at least one fibre channel primitive (processes OPN primitives flowing in) to generate at least one signal (to generate control signals) indicative of at least one source of data to be routed to the fibre channel arbitrated loop (to indicate to the cross-bar switch that the destination node has been located so as to connect the appropriate FCAL networks together to complete the conversation, col. 13, lines 33-42 and col. 15, lines 52-61).” Office Action, p. 5.

Black et al. discloses switch control circuits that perform “data transfer and flow control to the appropriate loop segment,” and “send appropriate control signals to the crossbar switch once the destination node has been located so as to connect the appropriate FCAL networks together . . .” Black et al., col. 13, lines 36-41. Black et al. further discloses a source node sending an OPN primitive “when a source node has data to send” to a destination node. Black et al., 52-56. Black et al. also discloses establishing “a communication path used by a first port

when an OPN to a remote destination node comes in to send a request for a connection to a second port coupled to the destination node.” Black et al., col. 14, lines 49-52.

Therefore, in Black et al., the OPN primitive is used to send data from one FCAL network to another FCAL network via a crossbar switch. Black et al. discloses sending data from a first port connected to one arbitrated loop, to a “second port coupled to the destination node” of another arbitrated loop upon receiving an OPN primitive. Black et al., col. 14, lines 49-52. Black et al does not disclose a primitive which routes data from a fibre channel arbitrated loop to the same fibre channel arbitrated loop.

Therefore, Black et al. does not disclose “processing the at least one fibre channel primitive to determine whether to route data received from the fibre channel arbitrated loop to the at least one disk or to the fibre channel arbitrated loop,” as specified in claim 9.

Accordingly, claim 9 and dependent claims 10-12 and 14 are therefore allowable.

Claim 15 was rejected under 35 U.S.C. 102(b) as being anticipated by Black et al. Claim 15, as amended, specifies “at least one multiplexer configured to route data received by the at least one data loop input to the data loop output or the at least one disk drive.”

The Office action states that Black et al. discloses “at least one multiplexer (protocol bus) configured to route (is the communication path), in accordance with the at least one signal, data received by the at least one data loop input or data or associated with the at least one device (to route the data between a first port and a second port in accordance with the control signals, col. 14, lines 44-52.” Office action, p. 7.

Black et al., at col. 14, lines 49-52 disclose sending data over a “communication path used by a first port when an OPN to a remote destination node comes in to send a request for a connection to a second port coupled to the destination node.”

Black does not appear to disclose “at least one multiplexer configured to route data received by the at least one data loop output or the at least one disk drive, as specified in claim 15.

Accordingly, claim 15 and dependent claims 16-25 are therefore allowable.

Claim 26 was rejected under 35 U.S.C. 102(b) as being anticipated by Black et al. Claim 26 specifies “routing, in accordance with the at least one signal, data from the data loop back to the data loop.”

The Office action states that Black discloses “routing the data between a first port and a second port of the FCAL net in accordance with the control signals, col. 14, lines 44-52.” Office action, p. 10.

Black et al. discloses, “The protocol bus is also the communication path used by a first port when an OPN to a remote destination node comes in to send a request for a connection to a second port coupled to the destination node. Black et al., col. 14, lines 48-52.

Thus, Black et al. does not appear to disclose “routing, in accordance with the at least one signal, data from the data loop back to the data loop,” as specified in claim 26.

Accordingly, claim 26 and dependent claims 27-32 are therefore allowable.

Claim 33 was rejected under 35 U.S.C. 102(b) as being anticipated by Black et al. Claim 33 specifies “at least one multiplexer configured to route, in accordance with the at least one control signal, the data from the at least one data loop input to the at least one data loop output.”

The Office action points to Black et al. for disclosing “at least one multiplexer (protocol bus) configured to route (is the communication path), in accordance with the at least one signal, the data received by [sic] the at least data loop input [sic] to the at least one data loop output (to route the data between a first port and a second port in accordance with the control signals, col. 14, lines 44-52).” Office action, p. 12-13.

Black et al. discloses data being transmitted via a “communication path used by a first port when an OPN to a remote destination node comes in to send a request for a connection to a second port coupled to the destination node.” Black et al., col. 14, lines 49-52. Thus, instead of disclosing a route from “the at least one data loop input to the at least one data loop output,” as specified in claim 33, Black et al. discloses a communication path from the output of a first port to the input of a second remote port.

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Therefore, Black et al. does not disclose "at least one multiplexer configured to route, in accordance with the at least one control signal, the data from the at least one data loop input to the at least one data loop output," as specified in claim 33.

Accordingly, claim 33 and dependent claims 34-36 are therefore allowable.

In view of the foregoing, the application is believed in condition for allowance, and allowance of the same is respectfully requested.

Respectfully submitted,
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